

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An A method of producing a fluoropolymer comprising the steps of removing oligomers by extruding the fluorine-containing ethylenic polymer obtained by polymerization using an extruder having a vent mechanism equipped with a pressure reducing device,

said fluoropolymer being an oligomer-containing or oligomer-free fluoropolymer, and being a copolymer comprising tetrafluoroethylene unit and a perfluoro monomer unit derived from a perfluoro monomer represented by the general formula (i):



wherein Rf¹ represents -CF₃ or -ORf², and Rf² represents a perfluoroalkyl group containing 1 to 5 carbon atoms, and

wherein the content of oligomers having a number average molecular weight of not higher than 10,000 is not higher than 0.05% by mass relative to the mass of said fluoropolymer wherein said oligomer has a molecular weight of not higher than 10,000 and amounts to not more than 0.05% by mass relative to the mass of said fluoropolymer.

2. (currently amended): An A method of producing a fluoropolymer comprising the steps of removing oligomers by extruding the fluorine-containing ethylenic polymer obtained by polymerization using an extruder having a vent mechanism equipped with a pressure reducing device,

said fluoropolymer being an oligomer-containing or oligomer-free fluoropolymer, and
being a copolymer comprising tetrafluoroethylene unit and a perfluoro monomer unit
derived from a perfluoro monomer represented by the general formula (i):



wherein Rf¹ represents -CF₃ or -ORf², and Rf² represents a perfluoroalkyl group containing 1 to
5 carbon atoms, and

wherein the content of oligomers having a number average molecular weight of not
higher than 35,000 is not higher than 0.7% by mass relative to the mass of said fluoropolymer
~~wherein said oligomer has a molecular weight of not higher than 35,000 and amounts to~~
~~not more than 0.7% by mass relative to the mass of said fluoropolymer.~~

3. (currently amended): The method of producing a fluoropolymer according to
~~Claim 1~~ Claim 25,

~~which~~wherein the fluoropolymer has a cohesive site and the number of said cohesive sites is 3 to 800 per 1×10^6 main chain carbon atoms of said fluoropolymer.

4. (currently amended): The method of producing a fluoropolymer according to
~~Claim 3~~ Claim 27,

wherein the cohesive site is carbonyl group, hydroxyl group and/or an amino group.

5. (currently amended): The method of producing a fluoropolymer according to
~~Claim 4~~ Claim 28,

wherein the carbonyl group is derived from at least one selected from the group consisting of formyl group, carboxyl group, a haloformyl group, ester bond, acid anhydride bond, a carbonate group, isocyanate group, an amide group, imide group, urethane bond and ureido group.

6. (currently amended): The method of producing a fluoropolymer according to

~~Claim 1~~ Claim 25,

~~which~~wherein the fluoropolymer has tetrafluoroethylene unit content of not lower than 20 mole percent.

7. (canceled).

8. (canceled).

9. (canceled).

10. (canceled).

11. (currently amended): The method of producing a fluoropolymer according to

Claim 1,

~~which~~wherein the fluoropolymer is a fluorine-containing cohesive ethylenic polymer.

12. (currently amended): A fluoropolymer composition comprising ~~the~~ an oligomer-containing or oligomer-free fluoropolymer ~~according to Claim 1~~, and an electrically conductive filler,

said copolymer comprising tetrafluoroethylene unit and a perfluoro monomer unit derived from a perfluoro monomer represented by the general formula (i):

$\text{CF}_2=\text{CF-Rf}^1$ (i)

wherein Rf^1 represents $-\text{CF}_3$ or $-\text{ORf}^2$, and Rf^2 represents a perfluoroalkyl group containing 1 to 5 carbon atoms, and

wherein the content of oligomers having a number average molecular weight of not higher than 10,000 is not higher than 0.05% by mass relative to the mass of said fluoropolymer which fluoropolymer composition gives an extrudate strand showing a surface resistance value of not higher than $10^9 \Omega\cdot\text{cm}/\text{cm}$ when charged into a melt indexer,

said fluoropolymer is produced by a method which comprises the steps of removing oligomers by extruding a fluorine-containing ethylenic polymer obtained by polymerization using an extruder having a vent mechanism equipped with a pressure reducing device.

13. (withdrawn-currently amended): A fluorine-containing molded material which is made from the fluoropolymer obtained by the method of producing a fluoropolymer according to Claim 1.

14. (withdrawn): A method of using fluorine-containing molded material, wherein the fluorine-containing molded material according to Claim 13 is used in contact with a liquid.

15. (withdrawn): A laminate comprising the fluorine-containing molded material according to Claim 13 and an other layer, wherein said other layer is made from an organic material, a metallic material and/or a vitreous material.

16. (withdrawn): The laminate according to Claim 15, wherein the organic material has a site having affinity for a fluoropolymer and/or reactivity with a fluoropolymer.

17. (withdrawn): The laminate according to Claim 16, wherein the site having affinity for the fluoropolymer and/or reactivity with the fluoropolymer includes hydroxyl group, a carbonate group, an amino group, an amide group, imide group, mercapto group, sulfonic acid group, an epoxy group, ester bond, carboxyl group and/or isocyanato group, and

 said mercapto group, said sulfonic acid group and/or said carboxyl group may be in the form of a salt.

18. (withdrawn): The laminate according to Claim 15,
wherein the organic material comprises a polyamide resin, a polyester resin, a polycarbonate resin, a polyamideimide resin, a polyethersulfone resin, a polysulfone resin, a urethane resin, a polyphenylene oxide resin, a polyetherimide resin, a polyacetal resin, a polyvinyl alcohol resin, an ethylene/vinyl alcohol resin and/or a modified polyolefin resin.

19. (withdrawn): The laminate according to Claim 15, which is one laminated by melt-coextrusion molding.

20. (withdrawn): A fluorine-containing fabricated article made with the fluorine-containing molded material according to Claim 13 ,
said fluorine-containing fabricated article is a film, a sheet, a hose or a tube.

21. (withdrawn): The fluorine-containing fabricated article according to Claim 20,
wherein the hose is a corrugated hose and the tube is a corrugated tube.

22. (withdrawn): The fluorine-containing fabricated article according to Claim 20 ,
wherein the tube is a piping tube for a paint, a tube for transport of a drink, a tube for transport of a liquid food, a tube for transport of a liquid chemical, a tube for transport of a fuel, or a hose for transport of a crude oil or a crude oil refined product.

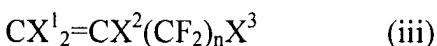
23. (withdrawn): A fluorine-containing molded material which is made from the fluoropolymer composition according to Claim 12.

24. (withdrawn): A fluorine-containing fabricated article made with the laminate according to Claim 15,
said fluorine-containing fabricated article is a film, a sheet, a hose or a tube.

25. (new): A method of producing a fluoropolymer comprising the steps of removing oligomers by extruding the fluorine-containing ethylenic polymer obtained by polymerization using an extruder having a vent mechanism equipped with a pressure reducing device, said fluoropolymer being an oligomer-containing or oligomer-free fluoropolymer, and being a copolymer comprising 0 to 60 mole percent as a total of a perfluorovinyl ether unit derived from a perfluorovinyl ether represented by the general formula (ii):



wherein Rf² represents a perfluoroalkyl group containing 1 to 5 carbon atoms, and/or a fluoroolefin unit derived from a fluoroolefin represented by the general formula (iii):



wherein X¹ and X² are the same or different and each represents hydrogen atom or fluorine atom, X³ represents hydrogen atom, fluorine atom or chlorine atom, and n represents an integer of 1 to 10,

20 to 80 mole percent of tetrafluoroethylene unit and

20 to 80 mole percent of ethylene unit, and

wherein the content of oligomers having a number average molecular weight of not higher than 10,000 is not higher than 0.05% by mass relative to the mass of said fluoropolymer.

26. (new): A method of producing a fluoropolymer comprising the steps of removing oligomers by extruding the fluorine-containing ethylenic polymer obtained by polymerization using an extruder having a vent mechanism equipped with a pressure reducing device, said fluoropolymer being an oligomer-containing or oligomer-free fluoropolymer, and being a copolymer comprising 0 to 60 mole percent as a total of a perfluorovinyl ether unit derived from a perfluorovinyl ether represented by the general formula (ii):

$\text{CF}_2=\text{CF-ORf}^2$ (ii)

wherein Rf^2 represents a perfluoroalkyl group containing 1 to 5 carbon atoms, and/or a fluoroolefin unit derived from a fluoroolefin represented by the general formula (iii):

$\text{CX}^1_2=\text{CX}^2(\text{CF}_2)_n\text{X}^3$ (iii)

wherein X^1 and X^2 are the same or different and each represents hydrogen atom or fluorine atom, X^3 represents hydrogen atom, fluorine atom or chlorine atom, and n represents an integer of 1 to 10,

20 to 80 mole percent of tetrafluoroethylene unit and

20 to 80 mole percent of ethylene unit, and

wherein the content of oligomers having a number average molecular weight of not higher than 35,000 is not higher than 0.7% by mass relative to the mass of said fluoropolymer.

27. (new): A method of producing a fluoropolymer comprising the steps of removing oligomers by extruding the fluorine-containing ethylenic polymer obtained by polymerization using an extruder having a vent mechanism equipped with a pressure reducing device, said fluoropolymer being an oligomer-containing or oligomer-free fluoropolymer, and being a copolymer comprising 15 to 84 mole percent of vinylidene fluoride unit, 15 to 84 mole percent of tetrafluoroethylene unit and 0 to 30 mole percent of hexafluoropropylene unit, and

wherein the content of oligomers having a number average molecular weight of not higher than 10,000 is not higher than 0.05% by mass relative to the mass of said fluoropolymer.

28. (new): A method of producing a fluoropolymer comprising the steps of removing oligomers by extruding the fluorine-containing ethylenic polymer obtained by polymerization using an extruder having a vent mechanism equipped with a pressure reducing device,

said fluoropolymer being an oligomer-containing or oligomer-free fluoropolymer, and
being a copolymer comprising 15 to 84 mole percent of vinylidene fluoride unit, 15 to 84
mole percent of tetrafluoroethylene unit and 0 to 30 mole percent of hexafluoropropylene unit,
and

wherein the content of oligomers having a number average molecular weight of not
higher than 35,000 is not higher than 0.7% by mass relative to the mass of said fluoropolymer.